VASCULAR IRRIGATION SOLUTION AND METHOD FOR INHIBITION OF PAIN, INFLAMMATION, SPASM AND RESTENOSIS

ABSTRACT OF THE DISCLOSURE

A method and solution for perioperatively inhibiting a variety of pain, inflammation, spasm and restenosis processes resulting from cardiovascular or general vascular therapeutic and diagnostic procedures. The solution preferably includes multiple pain and inflammation inhibitory agents and spasm inhibitory agents at dilute concentration in a physiologic carrier, such as saline or lactated Ringer's solution. Specific preferred embodiments of the solution of the present invention for use in cardiovascular and general vascular procedures also include anti-restenosis agents. The solution is introduced luminally to continuously irrigate an arterial site during an operative/interventional or diagnostic procedure for preemptive inhibition of pain and inflammation, vascular and non-vascular smooth muscle spasm, and restenosis while avoiding undesirable side effects associated with oral, intramuscular, subcutaneous or intravenous application of larger doses of the agents. One preferred solution to inhibit pain, inflammation, vasospasm and restenosis includes a serotonin₂ antagonist, a cyclooxygenase inhibitor, an endothelin antagonist, an ATP-sensitive K+ channel antagonist, a Ca2+ channel antagonist, a nitric oxide donor, an anti-thrombin agent, a glycoprotein IIb/IIIa receptor blocker, a PKC inhibitor and a protein tyrosine kinase inhibitor.

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